

Central Montana Interoperable Communications Consortium

Submitted to:

**Cindy Mullaney, DES Coordinator
Conrad, Montana**

Submitted By:

Northrop Grumman



April 18, 2005

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1 EXECUTIVE SUMMARY

Northrop Grumman is pleased to submit this Statement of Work (SOW) to the Central Montana Interoperable Communications Consortium (CMICC). It is submitted in response to a request for a Statement Of Work from the CMICC for the Interoperable Communications Project.

The by-laws of the CMICC read in part:

The objective of the Central Montana Interoperable Communications Consortium (CMICC) as set forth in the establishing Memorandum of Understanding, is to develop an interoperable P25 multimode radio communications system based on federal and state communication standards in which federal, state and local public safety and emergency management representatives can operate autonomously and transition seamlessly to communicate effectively in emergency mission roles. Such a system will provide secure voice and data communications for public safety and improve homeland security through provision of the means by which military and civil authorities may communicate. It will also provide for backwards compatibility during its implementation. This objective will be carried out in three phases. Phase I is Capability Assessment and Implementation Strategy. Phase II is the Final Plan Development Phase. Phase III is plan implementation. These bylaws are intended to apply to the efforts undertaken by the Consortium.

In addition, a Memorandum of Understanding was established between CMICC and the Montana Department of Military Affairs. This memorandum describes the understanding as follows:

This Memorandum of Understanding is entered into between Pondera, Teton, Cascade, Chouteau, Judith Basin, and Fergus Counties (hereinafter referred to as the Consortium or CMICC) and the Montana Department of Military Affairs (referred to as the State Administrative Agency, or SAA) to deploy the CMICC Interoperable Communications project in a multi-phased build out. While the focus of this effort will be response to terrorism or threat of terrorism, an all-hazard perspective will be maintained throughout.

The portion of the project for which this Statement of Work is prepared is "Phase I" as described above. The project has as its scope a broad Needs Assessment of the member counties of CMICC, a Gap Analysis to determine the gap between where CMICC members are today and where they desire and need to be, as determined by the Needs

Assessment. The project will produce a high-level schedule and workplan, to fill that gap, and a high-level cost to implement it. In addition, the project has a preliminary design as an explicit deliverable.

2 SCOPE OF WORK

2.1 INTRODUCTION

Many emergency responders in the state of Montana are struggling with challenges of interoperability with each other. Police, sheriffs, fire, ambulance, and a host of others are looking for solutions which will allow them to effectively communicate with each other during times of need, regardless of the nature of the emergency.

Often, emergency responders find themselves unable to communicate with each other due to differences in equipment, transmission frequencies, protocols, Incident Command Structures (ICS's), Standard Operating Procedures (SOPs), or even for reasons as simple as physical gaps in radio coverage. (For purposes of this document, the phrase "communications procedures and infrastructure" will be used to represent all of the various components that make up the whole picture of communications for an agency. As mentioned above, this includes equipment, transmission frequencies, protocols, ICS's, and SOPs.)

To address and help remedy these situations, various entities within the state of Montana have been formed. Initially, Lewis & Clark County conducted a successful pilot interoperability project (the Concept Demonstration Project 1, or CDP1) to coordinate services between emergency responders. This project established direction and infrastructure for the county, as well as demonstrated the technology and ability to implement interoperability across agencies – state, local, federal, and private. The Northern Tier Interoperability Consortium (NTIC), which consists of twelve Montana counties and four Indian nations, was formed to deal with these same issues. Of equal importance, these projects have demonstrated the ability for diverse agencies to cooperate and succeed.

When the NTIC initiated the Northern Tier Interoperability Project (NTIP), they adopted the same directions and infrastructure decisions made by Lewis & Clark County. Following NTIC and Lewis & Clark County, the Eastern Tier Communications Consortium (ETIC), which consists of ten counties in eastern Montana, decided on the same direction and is currently embarking on a similar project to ensure effective and comprehensive interoperability. Subsequently, the CMICC has also made the decision to adopt the directions and decisions already made by Lewis & Clark County and the NTIC, not the least because of significant overlap with these two entities.

2.2 NORTHROP GRUMMAN'S ROLE

Northrop Grumman's role on the CMICC Interoperable Communications Project (ICP) would be to provide project management, meeting/session facilitation, meeting/session

documentation, project scheduling, and project estimating. In this role, Northrop Grumman would conduct and manage the Needs Assessment and Gap Analysis sessions, document the results of those sessions, and produce a high-level workplan and estimate for design and implementation of the ICP in accordance with the requirements of the stakeholders of the project.

Changes in project scope which impact the project team, schedule, and/or cost will be processed in accordance with procedures described in section 4.2, *Project Controls*. The investigation and implementation of changes may result in modification to the estimated schedule, project budget or other aspects of this engagement.

2.3 REQUIREMENTS

The CMICC Memorandum of Understanding includes the following description for Phase I:

During Phase 1, the radio communications needs, capabilities and vulnerabilities of the members, both collectively and individually, will be assessed and from that assessment a comprehensive implementation strategy will be developed aimed at achieving a reliable, effective and fully interoperable communications system within the counties themselves and also between all local, state and federal entities that might be involved in emergency management and response.

2.4 ASSUMPTIONS

1. Lewis & Clark county and the Northern Tier Interoperability Consortium (NTIC) have made decisions concerning the direction they either have or will take with regard to the future direction of their emergency response equipment and infrastructure. This project will begin under the assumption that the CMICC will follow the lead of these entities and move in the same direction. This assumption provides the “future state” which will be used as the target for all entities within the CMICC.
2. Interoperability with Lewis & Clark County and the NTIC.
3. It is Northrop Grumman's assumption that nothing contained in any resultant contract would exclude Northrop Grumman from pursuing, obtaining, or being considered for any future work with the Central Montana Interoperable Communications Consortium or any other State agency.

2.5 STAKEHOLDERS

There are a variety of stakeholders in the CMICC ICP project. These include:

- County Sheriff's Offices for the counties represented.

- Montana Disaster and Emergency Services Division (DES) of the Montana Department of Military Affairs (DMA).
- Local Police, as appropriate.
- Emergency Medical Services (EMS).
- Fire Departments, rural and urban, volunteer and non-volunteer.
- City and County Public Works agencies, as appropriate.
- Montana Department of Transportation, as appropriate.
- Montana Highway Patrol, as appropriate.

2.6 TASK DEFINITIONS

The following sections describe the tasks that are needed to complete the requirements.

2.6.1 OVERALL PLAN FOR THE PROJECT

Through a series of facilitated sessions with stakeholders, Northrop Grumman and the CMICC will determine the current state of procedures, protocols, and other components of the communications infrastructure of each agency, document those current states, analyze the gap between the current states and desired future state (which is a set of communications procedures and infrastructure designed around the model of Lewis & Clark County and the NTIC), and create a plan and cost estimate for moving the agencies of the CMICC from where they are today to where they need to be tomorrow.

2.6.2 FACILITATED SESSIONS

Through a series of facilitated sessions, the project stakeholders and Northrop Grumman (NGIT) will together come to a common understanding of the requirements for the project and how best to accomplish the goals of interoperability between all stakeholders. These meetings will be conducted with project stakeholders and will explore both where they all are today with respect to their communication procedures and infrastructures, and where these are not meeting current needs.

Different stakeholders have different needs, but they generally fall into groups with similar needs. As a result, these meetings will be set up with those separate groups that have similar needs. As necessary, meetings will be set up in individual counties, although consolidated meetings are preferable.

In order to understand current situations, the questions that need to be asked and answered include:

- What is working well?
- What is not working well – Current problems:

- Different SOPs which cause communication breakdowns?
- Different ICS's which cause communication breakdowns?
- Equipment quality?
- Equipment quantity?
- Coverage areas – Holes? Areas without even an attempt at coverage?
- Miscommunications?
- Extra work?
- Describe your current radio systems and infrastructures.
- Describe your current SOPs and ICS's.

Following these meetings, the results will be documented in detailed meeting minutes.

2.6.3 DOCUMENTED RESULTS

An analysis will be made of the current state of each participant's communications procedures and infrastructure and the gap between that and the desired (future) state of their infrastructure. Emphasis will be placed on interoperability both within and between the explicit stakeholders as well as with the work and infrastructure already established by Lewis & Clark County and the Northern Tier Interoperability Consortium (NTIC). Additionally, efforts to achieve a common communications plan for all types of incidents will be defined.

2.6.4 TENTATIVE SCHEDULE

There are three different options Northrop Grumman proposes for organizing the facilitated sessions for this project:

1. By logical agency type.
 2. By County.
 3. A combination of the first two.
-
1. Sessions by logical agency type – In this arrangement, Northrop Grumman will schedule meetings based on the type of agency involved. For example, a session would be scheduled for all Sheriff's Offices, another for all Fire Departments, another for EMS, etc.
 2. Session by County – This option would involve scheduling meetings by county or by groups of counties.
 3. Combination – Under this option, which is Northrop Grumman's recommendation, a combination of the first and second options will be used. For Law Enforcement, Northrop Grumman recommends an CMICC-wide meeting which would include local police departments and county sheriff's offices. This option is recommended because it is believed that Law Enforcement has a great deal in common, and that the

very basis for the formation of the CMICC is to get Law Enforcement agencies together to discuss and solve their interoperability issues, but that the nature of the other stakeholders would benefit from combined sessions.

Option 3 is being used in this Statement Of Work for scheduling and estimating purposes, but that does not mean the CMICC necessarily has to agree to or “go” with this option. The final schedule can and will be determined once the project is underway.

| Location | Attendees | Topic | Duration |
|------------------------------------------|--------------------------------------------------------|------------------|-----------------|
| A central location, possibly Great Falls | CMICC Law Enforcement, including local Police | Needs Assessment | 1.5 days |
| County Group Location 1 | EMS & Fire | Needs Assessment | ½ day |
| County Group Location 2 | EMS & Fire | Needs Assessment | ½ day |
| County Group Location 3 | EMS & Fire | Needs Assessment | ½ day |
| County Group Location 4 | EMS & Fire | Needs Assessment | ½ day |
| Helena | Montana DES | Needs Assessment | ½ day |
| Helena | Montana DOT | Needs Assessment | ½ day |
| Helena | Montana Highway Patrol | Needs Assessment | ½ day |
| A central location, possibly Great Falls | CMICC Law Enforcement, including local Police | Follow-up | ½ day |
| County Group Location 1 | EMS & Fire | Follow-up | ½ day |
| County Group Location 2 | EMS & Fire | Follow-up | ½ day |
| County Group Location 3 | EMS & Fire | Follow-up | ½ day |
| County Group Location 4 | EMS & Fire | Follow-up | ½ day |
| Helena | Montana DES | Follow-up | ½ day |
| Helena | Montana DOT | Follow-up | ½ day |
| Helena | Montana Highway Patrol | Follow-up | ½ day |
| A central location, possibly Great Falls | Review of Deliverable document and Preliminary Design. | Follow-up | 1 day |

In order to come up with a worst-case cost estimate, it is assumed that eleven trips will need to be made by car to Great Falls and central Montana by Northrop Grumman. There may be fewer trip, however, as some trips may be combined to serve more than one group of agencies. CMICC is reminded that Northrop Grumman is proposing this effort to be a time and materials effort, with a not-to-exceed cap. This means the CMICC will only be charged for actual expenses, with an upper cap to limit risk and exposure.

2.7 DELIVERABLES

The following list summarizes the specific deliverables and timeframes to be completed under this SOW.

ON-GOING

- Minutes from each meeting/session held.
- Project statuses as required.
- Draft copies of the analysis.

AT PROJECT'S END

- The current state of each explicit stakeholder's communications infrastructure.
- The gap between each stakeholder's current state and the desired future state, with emphasis on the standards and infrastructure already in place for Lewis & Clark County and the NTIC as the *de facto* future state.
- A high-level workplan for completing the design and implementing the desired future state.
- A high-level cost analysis for completing the design and implementing the desired future state.
- A preliminary design for implementation of the CMICC vision.

2.8 PERIOD OF PERFORMANCE

For planning and contract purposes, the period of performance shall be July 1, 2005 through October 31, 2005.

3 NORTHROP GRUMMAN

Northrop Grumman Helena is a dedicated group of Montanans, living and working in Montana, providing services to Montanans. In fact, over 80% of our people are native Montanans. We are here, we have been here for fifteen years, and will be here tomorrow, providing services to Montana customers and providing jobs for Montanans.

Northrop Grumman's Northwest Engagement Center has been located in Helena, Montana since 1990 and since that time has provided high-quality Information Technology (IT) solutions and services to both the State of Montana and other public and private customers. Northrop Grumman offers a **gold mine of local talent** in those areas necessary for excellent and efficient project management, independent verification and validation (IV&V), software system solutions, network development and support, program administration, and an outstanding management and administrative staff. We do not have to recruit staff to provide services and solutions – a great many of our staff have successfully been providing these services for our customers for many years. We are here now, on the ground and ready to go, and we are backed by 120 of Montana's finest project management, systems, and business experts.

In addition, as part of Northrop Grumman, the Helena office can call upon the vast people and resources of Northrop Grumman Corporation, a worldwide company with more than 125,000 people. The Northrop Grumman IT sector alone employs over 22,000 people directly working in the IT industry. The skills represented by our people include IT Management, System Integration, Emergency Response and Public Safety, Information Assurance, Data Center Consolidation, Disaster Recovery, and High Volume Transaction Processing, among many others.

Northrop Grumman has the requisite experience, professional staff and management skills to perform on any IT-related contract. Northrop Grumman is committed to continuing its partnership with its customers to achieve **effective, efficient and coordinated delivery of IT services**. As experienced professionals, our staff offers an extensive knowledge base from which to draw to produce high quality results that our customers have come to expect from Northrop Grumman during the past decade and more.

Northrop Grumman possesses the right combination of strong analytical, programmatic, technical, and management professionals to support our customers in the critical endeavor to deliver quality and cost-effective services to Montanans. We are focused on the success of our clients.

THE NORTHROP GRUMMAN HELENA TEAM

Northrop Grumman has assembled a world-class team in our Helena office. We believe this team to be unparalleled in the Helena area. We bring a local organization with a local staff that has impeccable references and experience within Montana.

Since 1990, Northrop Grumman (formerly TRW) has provided project management, system analysis, design, development, and maintenance, along with network services to many customers within Montana. Through a variety of contracts and work orders, we have developed productive working relationships with many of the agencies within Montana State government and with many other public and private entities.

As Northrop Grumman's commitment to Montana has grown, so has our business base. We initially staffed The Economic Assistance Management System (TEAMS, developed for the State of Montana in February 1990) with three onsite professionals. From this small beginning, the Northrop Grumman staff in Helena has grown to our current size of 120 people. This tremendous growth is due largely to Northrop Grumman's ability to deliver the necessary people and other resources to meet the many and varied needs of our customers.

In addition to our general qualifications, Northrop Grumman also participated in both the Lewis & Clark County CDP1 project and the Northern Tier Interoperability Project (NTIP) in a project management and IV&V role. Northrop Grumman is currently working with the Eastern Tier Interoperability Consortium in the same role for their Interoperability Communications Plan project.

4 PROJECT MANAGEMENT METHODOLOGY

Northrop Grumman uses a proactive, flexible project management style that emphasizes partnership, communication, and cooperation. It is our goal to make sure the project is completely correctly the first time. We believe our approach ensures a successful, on-time, and within-budget implementation. We understand clearly our responsibility to manage this project by planning properly, anticipating problems, and communicating openly with the stakeholders on all issues.

We understand that the stakeholders will play a very active and important role in the design and implementation of the system. We will listen to and learn from all of the people made available to our team.

Northrop Grumman brings to each of our projects extensive and successful project management experience. On each project we undertake, we customize our standard project management components to ensure we are emphasizing and focusing on those particular items and aspects that are important to our customer. For this project we will apply that customization to ensure you receive what you consider necessary in the areas of:

- Regular Reports
- Timely Deliverables
- Ongoing Issues Reports
- Changes in scope

Our standard project management processes emphasize these areas in their template form, and thus the customization necessary for this project will be minimal.

4.2 PROJECT CONTROLS

To ensure the success of our projects, our project methodology incorporates several project control mechanisms. Each of the project control mechanisms proposed for use on this project are outlined below.

PROJECT CONTROL DOCUMENTS

A project change control methodology will be introduced at the beginning of the project. This will assist in keeping the project on track and on schedule.

The forms or types of requests which will be used in the control and tracking of the project are:

- Decision/Information Request (DIR)
- Project Change Request (PCR)
- Issue Report (IR)
- Deliverable Acceptance Request (DAR)

Each of these forms is described below.

Decision/Information Request (DIR)

The Decision/Information Request (DIR) is an important project management tool in the Northrop Grumman methodology. This tool is used when there is a need to have a written decision made, validated, or confirmed, or when additional information or clarification is required in order to proceed with a particular activity.

In some instances, the resolution of a DIR may result in a change in scope, which would then be handled through the Project Change Request (PCR) process. Project change requests represent a change in the scope of the contract.

Project Change Request (PCR)

A Project Change Request (PCR) will be issued when Northrop Grumman and the system owners mutually agree that work, over and above the agreed-upon contract level, needs to be accomplished. PCRs may also be issued for any other change in project scope, project timeline, or project cost estimate. In such cases, Northrop Grumman will develop a PCR that includes a reason for the change, a description of the work to be accomplished and an estimate of the level of effort required. The PCR also identifies any ramifications or impact that the change may have on the project schedule, staffing, and/or implementation costs.

Issue Report (IR)

During the course of the project it is inevitable that issues will arise. Such issues must be handled quickly and efficiently to mitigate their effect on the project. Many such issues can be handled at the project management level (using DIRs, for example), and others must be escalated. Issue resolution is most successful as a team effort. Issues are handled best if they are documented and remain visible until their resolution. Northrop Grumman will document and track issues as they arise.

As required, an Issue Report is completed that documents the nature of the issue, impact of the issue, required response dates, person(s) responsible for issue resolution, and recommended response, as appropriate.

If an issue cannot be resolved at the project level, it will be elevated to executive management for resolution.

Deliverable Acceptance Request Form (DAR)

Northrop Grumman will use a formal signoff procedure and will hold checkpoint reviews at appropriate stages of the development of deliverables to communicate with the system owners and control the development of deliverables. Use of these mechanisms ensures that the deliverables being produced meet quality standards and the expectations of the system owners in terms of purpose, content, level of detail, and format.

In order to track the deliverable review process, Northrop Grumman will use the Deliverable Acceptance Document. This document is used by the key project team members to sign off and make comments, and is ultimately signed by the system owner project management to indicate that a deliverable has been accepted.

The process of acceptance of end products is central to the Northrop Grumman Project Management methodology.

4.3 PROJECT REPORTING

One of the keys to early problem identification and resolution in a project environment is an effective status reporting structure. Such reports ensure issue identification, visibility, and attention. Consequently, an integral part of Northrop Grumman's approach to project management is regular, effective and consistent status reporting. To maintain effective communication within the project, Northrop Grumman proposes the use of bi-weekly status reports.

Status Reporting

This report summarizes at a management level the activities of the project on a regular basis. Every two weeks, the Northrop Grumman Project Manager will contact the CMICC project management and provide a written status report. Our status meetings and reports include:

- The overall status of the project schedule.
- Analysis of appropriate critical path items.
- Activities that Northrop Grumman is currently working on.
- Any problems that have been encountered and their proposed or actual resolution.
- Any proposed changes in previously established activities and/or timelines.

In addition, we will include an updated version of the project workplan that includes the status of tasks and activities scheduled and completed to date, as well as the activities to be completed during the next reporting period.

Should the system owners desire, status reports on a more frequent basis than bi-weekly can be provided as well, although they may not be as detailed.

5 COST ESTIMATE

Northrop Grumman proposes that the project be a time and materials effort with a not-to-exceed cap. This will allow the Consortium greater flexibility with regard to potential reduction in scope or any value-added or additional inputs from users throughout the process.

5.1 RESOURCES

Northrop Grumman proposes to provide Keith Lavender, or a manager of similar qualifications if Mr. Lavender is unavailable, for the project. The project manager will be responsible for overseeing the timely execution of the project in accordance with the terms of the contract. For this project, this will include facilitating communication between multiple agencies at the federal, state, local and private levels (as appropriate), managing project budgets, overseeing formal change management, identifying and mitigating project risk points, confirming Phase II scope of work, and ensuring compliance with all local and federal reporting requirements.

Northrop Grumman further proposes that an additional project management person be provided if necessary, as required.

5.2 TRAVEL

Northrop Grumman proposes that all travel be done at actual Time and Materials (T&M) costs, not to exceed the State of Montana per diem for travel, and would be invoiced as the costs are incurred. It is not known at this time what the travel requirements of the project would be. For budget purposes, the assumption is eleven trips of one to two day duration. This figure provides a travel budget that represents the "worst case."

5.3 ESTIMATED EXPENSES

| Description | Quantity | Rate | Total |
|--------------------|------------------------|-----------------|--------------|
| Project Management | 500 | \$135.00 | \$67,500 |
| Travel | 11 trips/1-2 days each | \$355 (average) | \$3,905 |
| | | Total Estimate | \$71,405 |

In order to come up with a worst-case cost estimate, it is assumed that eleven trips will need to be made by car to Great Falls or elsewhere in central Montana by Northrop Grumman. There may be fewer trips, however, as some trips may be combined to serve more than one group of agencies. CMICC is reminded that Northrop Grumman is proposing this effort to be a time and materials effort, with a not-to-exceed cap. This

means the CMICC will only be charged for actual expenses, with an upper cap to limit risk and exposure.

5.4 EXTENT OF WORK

Northrop Grumman shall perform the tasks identified in the Scope section above. All tasks will be performed on a Time and Materials basis

Northrop Grumman shall manage all Contractor activities and deliverables required by this SOW. The Contractor's Point of Contact is:

Name: Mark Adams
Address: Northrop Grumman
2401 Colonial Drive
City: Helena, MT 59601
Phone: (406) 443-8694
Cell: (406) 461-6063
Fax: (406) 443-8601
Email: mark.e.adams@ngc.com

The Consortium's Point of Contact is:

Name: Cindy Mullaney, DES Coordinator
Address: 20 4th Ave. SW
City: Conrad, MT 59425
Phone: (406) 271-4040

5.5 ADDITIONAL TERMS AND CONDITIONS SPECIFIC TO THIS SOW

- This task is a level of effort task and the customer shall be billed for actual hours expended.
- Payments to Northrop Grumman shall be made monthly. The CMICC will be invoiced through the point of contact identified in section 4.5.



Execution/Signature Block

In Witness Whereof, the parties hereto, having read this SOW in its entirety, do agree thereto in each and every particular.

Approved

Approved

Central Montana Interoperable
Communications Consortium

Northrop Grumman

Signature

Signature

Print or Type Name

Print or Type Name

Title

Title

Date

Date

ATTEST:

**Trusted Solutions
for Government and Business**



Submitted By:
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www.northropgrumman.com

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